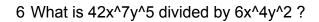
1 Find the largest integer G such that 10G - 85 < 0.
2 If g and h are real numbers, not equal to 0, such that the product of g and 6 is h, what is the sum of 6 and g in terms of h?
3 Some children are dividing a number of toy trucks. If each child gets 9, then there will be 3 toy trucks left over. However, 3 children do not want to participate, so the toy trucks will be split among the others. Each child will get 12 toy trucks, and there will be 6 remaining. How many toy trucks are there altogether?
4 If vases cost 20 dollars each, and card tables cost 28 dollars each, what is the cost of X vases and Y card tables?
5 If 11/18 = 11/(q+18), what is q?

Please e-mail comments and suggestions to: edu@ezlink.com

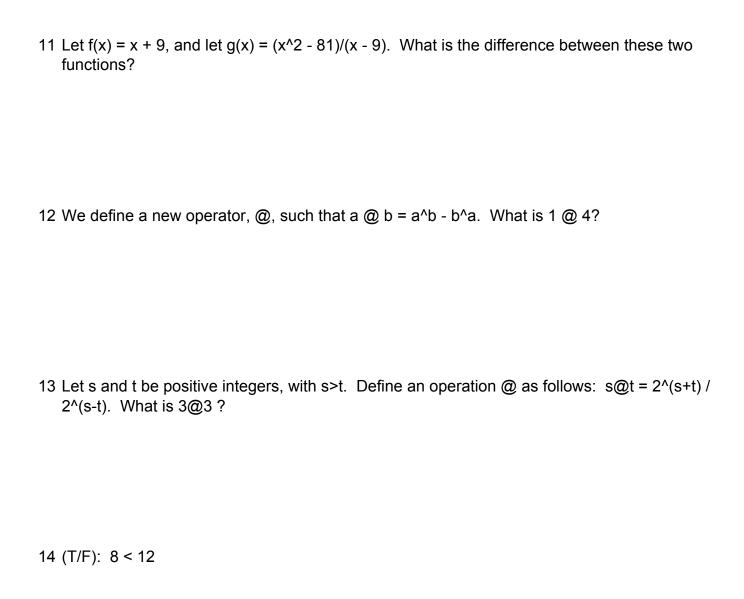


7 If
$$y = 10x - 4$$
, what is the value of y when $x = 6$?

8 What is the value of
$$6q$$
 if $q = 11s$ and $s = 4$?

9 What is the value of -8s if
$$s = 6u + 5$$
 and $u = 7$?

10 What is the value of 11p if
$$p = -5q - 5$$
 and $q = 3$?



15 (T/F): -9 < -7

1	ANSWER: 8. EXPLANATION: The expression 10G - 85 equals 0 when G = 17/2. The largest integer smaller than this fraction is 8.
2	ANSWER: $6 + h/6$. EXPLANATION: The problem asks for the sum of 6 and g, which is obviously $6 + g$. However, it asks for this sum in terms of h. Since we know that $6g = h$, then $g = h/6$, and we can use this equation to substitute for g to get the answer in terms of h.
3	ANSWER: 102. EXPLANATION: Let n be the total number of children. If each child gets 9 toy trucks, there will be 3 toy trucks left over, so the number of toy trucks is $9n + 3$. From the second part of the problem, we know that the total number of toy trucks is also $12(n - 3) + 6$. Therefore, $9n + 3 = 12(n - 3) + 6$. We solve this to get $n = 11$. We then plug this value for n into the formula $9n + 3$ to find the total number of toy trucks.
4	ANSWER: 20X + 28Y. EXPLANATION: The cost of the vases is 20X, and the cost of the card tables is 28Y.
5	ANSWER: 0. EXPLANATION: Because the numerators on both sides of the equals sign are the same, the denominators must also be the same. Therefore, we simply need to solve the equation q+18=18.

6	ANSWER: 7x^3y^3. EXPLANATION: Divide the 42 by 6, the x^7 by x^4, and the y^5 by y^2. Remember that you divide exponents by subtracting.
7	ANSWER: 56
8	ANSWER: 264. EXPLANATION: If $q = 11s$ and $s = 4$, then we substitute 4 for s and find that $q = 11 \times 4$, or 44. Since the question asks us to find the value of 6q, we simply multiply 6 by 44 to get the answer.
9	ANSWER: -376. EXPLANATION: If $s = 6u + 5$ and $u = 7$, then we substitute 7 for u and find that $s = 6 \times 7 + 5$, or 47. Since the question asks us to find the value of -8s, we simply multiply -8 by 47 to get the answer.
10	ANSWER: -220. EXPLANATION: If $p = -5q - 5$ and $q = 3$, then we substitute 3 for q and find that $p = -5 \times 3 - 5$, or -20. Since the question asks us to find the value of 11p, we simply multiply 11 by -20 to get the answer.

11	ANSWER: The functions are identical, other than $g(x)$ being undefined where $x=9$ EXPLANATION: Divide the denominator of $g(x)$ into the numerator of $g(x)$ to see that the functions appear to be identical. However, note that $g(x)$ is undefined when the denominator is 0, because division by 0 is undefined.
12	ANSWER: -3. EXPLANATION: By the definition of the function, 1 @ 4 = 1^4 - 4^1. We know that 1^4=1, and 4^1=4. We then subtract to find the difference.
13	ANSWER: 64. EXPLANATION: In this case, the value of s does not matter. The difference between the exponents in the numerator (s+3) and the denominator (s-3) will always be 6. Therefore, when you divide the numerator by the denominator, your answer will be 2^6, regardless of the value of s.
14	ANSWER: True
15	ANSWER: True